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# An Analysis of the Causes of Increases In Medicaid Payments, New Jersey, 1970-74

PAUL L. GRIMALDI, PhD

IN A PREVIOUS EDITION of this journal (1), Foline Gartside reported findings of her examination of increases in payments made under California's Medicaid (Medi-Cal) program. She compared California vendor payments for public welfare medical care in 1965, the fiscal year before Medi-Cal, with payments made under Medi-Cal in calendar year 1969. Her major finding was that price increases, which resembled increases in the medical components of the Consumer Price Index, accounted for nearly 50 percent of the payment increase, with the remainder almost equally divided between increases in the number of eligible persons and in per capita utilization.

A similar study was made of payments made under the New Jersey Medicaid Program between calendar years 1970 and 1974. Nine of the 17 covered services were studied: skilled nursing care, general hospital inpatient and outpatient services, physician services, prescribed drugs, optometric examinations, optical appliances, independent clinic services, and home health services. In each of the 5 study years, these 9 ser-

vices absorbed no less than 76 percent of total Medicaid payments.

This study, besides providing more recent information on Medicaid, differs from Gartside's in several respects. First, the findings are for a State with a categorically related program, not one with a medically indigent program. Second, in this study analyses were made of annual rates of change in prices, eligible persons, and utilization as well as rates for the entire period. Third, the base and comparison years are those in which the New Jersey program was operational, whereas Gartside's base is the year before the Medi-Cal program. Fourth, Gartside's methodology is supplemented by an alternative method to determine whether the estimation procedures affect the conclusions about sources of increases in New Jersey Medicaid payments.

## New Jersey Medicaid Program

The New Jersey Medicaid Program, implemented on January 1, 1970, gave eligible persons the right to receive a comprehensive scope of health services, free of charge, from qualified providers willing to participate in the program. From 1970 through 1974, total Medicaid payments nearly tripled, rising from \$124.2

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□ *Tearsheet requests to Dr. Paul L. Grimaldi, Assistant Professor of Economics, Seton Hall University, Economics Department, W. Paul Stillman School of Business, South Orange, N.J. 07079.*

Table 1. Medicaid payments (in thousands), New Jersey, calendar years 1970 and 1974

Service	Calendar year 1970		Calendar year 1974		Change, 1970-74	
	Amount	Percent	Amount	Percent	Amount	Percent
Skilled nursing .....	\$43,493	35.0	\$103,461	29.6	\$59,968	137.9
Mental hospital .....	19,021	15.3	43,291	12.4	24,270	127.6
General hospital, inpatient .....	22,859	18.4	82,270	23.5	59,411	259.9
General hospital, outpatient .....	6,288	5.1	22,297	6.4	16,009	254.6
Physician .....	13,443	10.8	43,637	12.5	30,194	224.6
Prescribed drugs .....	8,542	6.9	23,080	6.6	14,538	170.2
Dentist .....	6,014	4.8	16,547	4.7	10,533	175.1
Optometric examination .....	765	0.6	1,564	0.4	799	104.4
Optical appliances .....	1,301	1.0	2,294	0.7	993	76.3
Independent clinic .....	169	0.1	2,009	0.6	1,840	1,088.8
Home health visit .....	220	0.2	522	0.1	302	137.3
Laboratory and X-rays .....	200	0.2	2,237	0.6	2,037	1,018.5
Medical supplies and prosthetics .....	341	0.3	1,761	0.5	1,420	416.4
Other services <sup>2</sup> .....	1,570	1.3	4,992	1.4	3,422	218.0
Total <sup>3</sup> .....	\$124,226	100.0	\$349,962	100.0	\$225,736	181.7

<sup>1</sup> Includes payments to intermediate care facilities.

<sup>2</sup> Includes podiatry, transportation, and Medicare B premiums.

<sup>3</sup>Excludes payments for health services provided before January 1, 1970.

SOURCE: Various reports of the Division of Medical Assistance and Health Services, New Jersey.

million to \$350 million (table 1). Payments increased for each service, with the rate of increase varying by type of service. For example, payments for care provided by nursing facilities were up by \$60 million (138 percent), physician services by \$30.2 million (225 percent), and laboratory and X-ray services by \$2 million (more than 1,000 percent).

One result of these different growth rates was a change in the composition of the Medicaid dollar. Most noticeable is the shift away from nursing care into general inpatient hospitalization. In 1970, 35 percent of the dollar was spent for skilled nursing care and slightly more than 18 percent for inpatient hospitalization. By the end of 1974, nursing had fallen to 29.6 percent while inpatient hospitalization had risen to 23.5 percent.

Initially, subject to certain exceptions, New Jersey Medicaid-eligible persons were categorically-related individuals, that is, persons receiving public assistance under one of the four federally-matched public assistance categories: (a) Old Age Assistance (OAA), (b) Aid to the Permanently and Totally Disabled (DA), (c) Aid to Families with Dependent Children (AFDC), and (d) Aid to the Blind (AB). Since January 1, 1970, there have been several changes in eligibility requirements. Among the most important for this study's purposes are the following:

1. In July 1970, New Jersey began to use Medicaid as a payment mechanism for health services provided for Cuban refugees. In each of the study years, the average monthly number of eligible Cuban refugees was no more than 2.5 percent of the total number of eligible persons.

2. In July 1971, as a result of changes in State eligibility requirements for AFDC, 107,000 persons lost

their eligibility; 34,000 immediately regained it in the newly established category of Assistance to Families of the Working Poor.

3. In July 1971, about 12,500 residents of State mental hospitals and schools for the retarded became eligible for Medicaid services received in the medical-surgical units of these facilities or in the community.

4. In January 1974, eligibility requirements for the OAA, DA, and AB categories were liberalized because of the 1972 Amendments to the Social Security Act. The amendments combined these categories into the supplemental security income eligibles and made possible a substantial increase in the number of aged, blind, and disabled eligible persons.

As shown in the chart, (p. 514) the average monthly number of eligible persons (those enrolled in the program) increased at a decreasing rate between 1970 and 1974, with almost 58 percent of the increase occurring between 1970 and 1971. The chart also shows an annual increase in the ratio of aged, blind, and disabled eligible persons to total eligible persons. The increase between 1970 and 1972 was largely due to the 1971 changes in eligibility requirements. The 1973-74 increase reflects the 1972 Amendments to the Social Security Act.

## Methodology

The increases in New Jersey Medicaid payments are attributed to (a) changes in Medicaid prices or fees, labeled the price effect; (b) changes in the number of eligible persons, designated the eligible-persons effect; and (c) changes in utilization per eligible person, labeled the utilization effect. Two methodologies are used to estimate the contribution of each effect to the payment in-

crease. Method A is nearly the same as Gartside's. Method B is similar to the estimation procedures used by Klarman and associates (2) in their study of the sources of increases in national expenditures for physician services, dental care, and short-term hospital care.

Method B was used to determine whether it led to conclusions that differed from those reached from method A. Different conclusions could result because in the computations of method A interaction terms evolve, and, as has been done frequently in the past, they were disposed of by arbitrary weighting procedures. Method B, however, minimizes the need for these procedures since annual rates of change almost eliminate interaction terms (2a).

*Method A.* A more detailed discussion of method A was presented by Gartside (1a). The first 6 equations are used to calculate the contribution of each effect to the increase in Medicaid payments. Equation (1) divides the increase into the amounts due to a change in price and a change in total units of care. Equation (2) divides the change in units of care into the amounts resulting from a change in the number of eligible persons and a change in utilization per eligible person. Equation (3) shows equation (2) substituted into equation (1). Equations (4)–(6) are used to compute the percentage contribution of each effect to the payment increase. Equations (7)–(9) show the methods used to compute index numbers for each effect. These index numbers are helpful in analyzing trends and forecasting future changes in Medicaid payments.

$$(1) \text{ PAY}_{ci} - \text{PAY}_{bi} = Q_{ci} (P_{ci} - P_{bi}) + P_{bi} (Q_{ci} - Q_{bi})$$

$$(2) Q_{ci} - Q_{bi} = MUE_{bi} (AMNE_{ci} - AMNE_{bi}) + AMNE_{ci} (MUE_{ci} - MUE_{bi})$$

$$(3) \text{ PAY}_{ci} - \text{PAY}_{bi} = Q_{ci} (P_{ci} - P_{bi}) + P_{bi} [MUE_{bi} (AMNE_{ci} - AMNE_{bi}) + AMNE_{ci} (MUE_{ci} - MUE_{bi})]$$

$$(4) \% \Delta \text{ in } \text{PAY}_i \text{ due to } \Delta P_i = \frac{Q_{ci} (P_{ci} - P_{bi})}{\text{PAY}_{ci} - \text{PAY}_{bi}}$$

$$(5) \% \Delta \text{ in } \text{PAY}_i \text{ due to } \Delta AMNE = \frac{P_{bi} MUE_{bi} (AMNE_{ci} - AMNE_{bi})}{\text{PAY}_{ci} - \text{PAY}_{bi}}$$

$$(6) \% \Delta \text{ in } \text{PAY}_i \text{ due to } \Delta MUE_i = \frac{P_{bi} AMNE_{ci} (MUE_{ci} - MUE_{bi})}{\text{PAY}_{ci} - \text{PAY}_{bi}}$$

$$(7) PR_i = \frac{P_{ci}}{P_{bi}} (100)$$

$$(8) E = \frac{AMNE_c}{AMNE_b} (100)$$

$$(9) U_i = \frac{MUE_{ci}}{MUE_{bi}} (100)$$

where:

*i* = type of service

*b* = base year

*c* = comparison year

*E* = eligible-persons index

*P* = payment per unit of service

*Q* = total units of service

*U* = utilization index

*PR* = price index

*PAY* = total Medicaid payment

*AMNE* = average monthly number of eligible persons

*MUE* = mean units of service per eligible person

At this point, it is important to make a few observations about the price effect. Unlike the Consumer Price Index, price changes reported here apparently are not based on changes in the cost of a specific basket of goods and services since the price index is computed by dividing the average payment for a particular unit of

Table 2. Selected data<sup>1</sup> for the New Jersey Medicaid Program, calendar years 1970–74

Unit of service	Mean payment per unit of service					Mean units per eligible person <sup>2</sup>				
	1970	1971	1972	1973	1974	1970	1971	1972	1973	1974
Skilled nursing day .....	\$12.24	\$15.41	\$16.28	\$16.93	<sup>3</sup> \$19.16	8.268	7.940	8.215	8.368	<sup>3</sup> 9.324
Inpatient hospital day .....	54.61	61.89	59.36	63.20	72.06	0.974	1.538	1.858	2.037	1.971
Outpatient hospital visit .....	18.71	20.08	18.90	19.90	20.61	0.782	1.172	1.727	1.793	1.868
Physician visit <sup>4</sup> .....	11.04	11.61	12.40	13.40	13.48	2.832	4.246	4.519	4.667	5.591
Prescribed drugs .....	3.91	4.08	4.17	4.26	4.52	5.087	6.468	7.180	8.186	8.820
Optical appliances .....	22.08	21.91	22.94	23.00	23.53	0.137	0.155	0.153	0.157	0.168
Optometric examination .....	13.22	13.30	13.61	13.61	16.28	0.135	0.133	0.126	0.130	0.166
Home health visit .....	10.69	12.74	13.47	13.47	14.88	0.048	0.065	0.066	0.072	0.061
Independent clinic visit .....	6.74	9.03	8.92	11.84	17.67	0.058	0.109	0.124	0.170	0.196

<sup>1</sup> Nursing days estimated for 1970 and 1971; other units estimated for October and December 1970.

<sup>2</sup> Obtained by dividing the total units of care by the average monthly number of eligible persons.

<sup>3</sup> Includes payments to intermediate care facilities.

<sup>4</sup> Includes surgical procedures.

SOURCE: Various reports of the Division of Medical Assistance and Health Services, New Jersey.

service in the comparison year by the average payment in the base year. The average payment figures (table 2) are arrived at by dividing payments for a service by the units of service, with no adjustment made for the composition of the services or for Medicare or other third parties absorbing a portion of the cost. Hence, a price change is not necessarily indicative of a pure change in price, that is, a change in the price of the same unit of service. Part of the change may also be attributable to a change in (a) the type or quantity of care provided during an encounter with a provider, (b) the place of service, (c) the provider's specialty, (d) the quality of care, and (e) the amount of the bill financed by non-Medicaid sources.

If estimated price changes are overstated, the result is an understatement of the utilization effect. In other words, because the price effect includes non-pure price changes, part of the utilization increase was reported as a price increase. For example, an eligible person substitutes more expensive physician care for less expensive physician care, say a visit to a neurosurgeon for a visit to a general practitioner. According to the methods employed here, utilization would remain constant while the price of a physician visit increased; however, this is the opposite of what happened.

*Method B.* An alternate way to compute the contribution of each effect to the payment increase is by use of annual geometric rates of change for payments, prices, eligible persons, and utilization. The annual rate ( $r$ ) of change in Medicaid payments for the  $i$ th service can be determined by

$$(10) \text{ PAY}_{ci} = \text{PAY}_{bi} (1 + r)^t$$

Dividing both sides by  $\text{PAY}_{bi}$  yields

$$(11) \frac{\text{PAY}_{ci}}{\text{PAY}_{bi}} = (1 + r)^t$$

With  $t$  equal to the difference between the comparison and base years ( $c-b$ ),  $r$  can be obtained by referring to tables showing the value of a dollar compounded for different interest rates and time periods.

The annual rates of change in prices ( $p$ ), eligible persons ( $e$ ), and utilization ( $u$ ) can be obtained by the same procedure. The result is that  $r = p + e + u$  if interaction effects are entirely eliminated. (Where they were not eliminated, the differences were allocated in proportion to the computed values for  $p$ ,  $e$ , and  $u$ .)

The relative contribution of each effect was computed by dividing the annual rate of change in each effect by  $r$ . Multiplying the resultant percentage by the change in Medicaid payments yields the change in payments due to a given effect, that is:

$$(12) \Delta \text{ in PAY}_i \text{ due to } \Delta P_i = \frac{p}{r} (\text{PAY}_{ci} - \text{PAY}_{bi})$$

$$(13) \Delta \text{ in PAY}_i \text{ due to } \Delta AMNE = \frac{e}{r} (\text{PAY}_{ci} - \text{PAY}_{bi})$$

$$(14) \Delta \text{ in PAY}_i \text{ due to } \Delta MUE_i = \frac{u}{r} (\text{PAY}_{ci} - \text{PAY}_{bi})$$

## Findings

The results obtained from method A show that the utilization effect explains the bulk (42.5 percent) of the payment increase, including 74 percent of the increase for outpatient hospital care and slightly more than 58 percent for physician services and prescribed drugs (table 3). The price effect ranks second as a contributor to the payment increase (39.2 percent), primarily because of inpatient hospitalization (33.5 percent) and skilled nursing care (62.3 percent). The eligible-persons effect accounted for about 18 percent of the payment increase, ranging from 3.2 percent for clinic visits to 45.5 percent for optical appliances.

Method B also yields results which indicate that the utilization effect was the major contributor to the payment increase (table 4). The findings for the aggregate

Table 3. Causes of increases in Medicaid payments (in thousands), New Jersey, calendar years 1970-74

Service	Price effect		Eligible-persons effect		Utilization effect		Total payment increase	
	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent
Skilled nursing .....	\$37,391	62.3	\$15,099	25.2	\$ 7,478	12.5	\$ 59,968	100.0
General hospital, inpatient .....	19,930	33.5	7,935	13.4	31,546	53.1	59,411	100.0
General hospital, outpatient .....	2,050	12.8	2,183	13.6	11,776	73.6	16,009	100.0
Physician .....	7,877	26.1	4,667	15.5	17,650	58.4	30,194	100.0
Prescribed drugs .....	3,128	21.5	2,966	20.4	8,444	58.1	14,538	100.0
Optical appliances .....	141	14.2	452	45.5	400	40.3	993	100.0
Optometric examination .....	294	36.8	266	33.3	239	29.9	799	100.0
Home health visit .....	147	48.7	77	25.5	78	25.8	302	100.0
Independent clinic .....	1,243	67.6	59	3.2	538	29.2	1,840	100.0
All 9 services .....	\$72,201	39.2	\$33,704	18.3	\$78,149	42.5	\$184,054	100.0

NOTE: results obtained from method A (see text).

SOURCE: table 2 and the chart.

Table 4. Causes of increases in Medicaid payments (in thousands), New Jersey, calendar years 1970-74

Service	Price effect		Eligible-persons effect		Utilization effect		Total payment increase	
	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent
Skilled nursing .....	\$31,543	52.6	\$20,449	34.1	\$ 7,976	13.3	\$ 59,968	100.0
General hospital, inpatient .....	12,536	21.1	13,367	22.5	33,508	56.4	59,411	100.0
General hospital, outpatient .....	1,169	7.3	3,570	22.3	11,270	70.4	16,009	100.0
Physician .....	4,921	16.3	7,398	24.5	17,875	59.2	30,194	100.0
Prescribed drugs .....	2,050	14.1	4,274	29.4	8,214	56.5	14,538	100.0
Optical appliances .....	109	11.0	527	53.1	357	35.9	993	100.0
Optometric examination .....	232	29.0	335	42.0	232	29.0	799	100.0
Home health visit .....	117	38.6	104	34.5	81	26.9	302	100.0
Independent clinic .....	712	38.7	202	11.0	926	50.3	1,840	100.0
All 9 services .....	\$53,389	29.0	\$50,226	27.3	\$80,439	43.7	\$184,054	100.0

NOTE: results obtained from method B (see text).

SOURCE: table 2 and the chart.

increase and, with the exception of independent clinics, for each service resemble those of method A. For the price and eligible-persons effects, however, method B attributes substantially less to the price effect and more to the eligible-persons effect. For most services, there is a difference of at least 7 percentage points. Hence, method B suggests more strongly than does method A that payments increased largely because of increases in utilization and the number of eligible persons rather than because of price increases.

The utilization indices in table 5 indicate that between 1970 and 1974 there was a formidable increase in the rate at which eligible persons received Medicaid services. The use of independent clinic visits more than tripled, for inpatient days and outpatient visits it more than doubled, and for physician visits it almost doubled. These increases are apparently partly due to (a) the relative increase in the number of aged, blind, and disabled eligible persons, (b) more eligible persons becoming aware of available services, (c) the efforts of the Division of Medical Assistance and Health Services to encourage eligible persons to seek care more often,

(d) the relatively low utilization during the startup months of 1970, and (e) a lag between the dates of service and payment.

An analysis of the annual utilization indices reveals no pattern to the rates of increase. However, excluding skilled nursing days and optometric examinations, it does show that a large increase occurred between 1970 and 1971. Moreover, the indices show that generally utilization increased by a relatively small amount between 1972 and 1973. For example, the mean number of physician visits per eligible person increased by 3.3 percent compared with 6.4 percent between 1971 and 1972 (table 2). In addition, the mean number of outpatient visits rose by 3.8 percent compared with 47.4 percent during the earlier period. The relatively lower growth rates for 1972-73 suggest that utilization would grow at a slower rate, all things considered, if the composition of the eligibility rolls and the scope of covered services remained the same.

The price indices in table 5 show that generally while the payment for a unit of service increased annually, like the utilization effect, there was no discernible

Table 5. Price and utilization indices for the New Jersey Medicaid Program, calendar years 1970-74<sup>1</sup>

Unit of service	Price index				Utilization index			
	1971	1972	1973	1974	1971	1972	1973	1974
Skilled nursing day .....	125.90	133.01	138.32	<sup>2</sup> 156.54	96.03	99.36	101.21	<sup>2</sup> 112.77
Inpatient hospital day .....	113.33	108.70	115.73	131.95	157.91	190.76	209.14	202.36
Outpatient hospital visit .....	107.32	101.02	106.36	110.15	149.87	220.84	229.28	238.87
Physician visit .....	105.16	112.32	121.38	122.10	149.93	159.57	164.80	197.42
Prescribed drugs .....	104.35	106.65	108.95	115.60	127.15	141.14	160.92	173.38
Optical appliances .....	99.23	103.89	104.17	106.57	113.14	111.68	114.60	122.63
Optometric examination .....	100.61	102.95	102.95	123.15	98.52	93.33	96.30	122.96
Home health visit .....	119.18	126.01	126.01	139.20	135.42	137.50	150.00	127.08
Independent clinic visit .....	133.98	132.34	175.67	262.17	187.93	213.79	293.10	337.93

<sup>1</sup> 1970 = 100.

SOURCE: table 2.

<sup>2</sup> Includes payments to intermediate care facilities.

pattern to the rates of increase. On one hand, payments for a prescribed drug, a physician visit, and a day at a skilled nursing facility increased annually, although by different and varying amounts. On the other hand, payments for an outpatient visit and an optical appliance decreased in one of the study years. For example, the payment for an outpatient visit dropped in 1972 (price index = 101.0) to nearly its 1970 level.

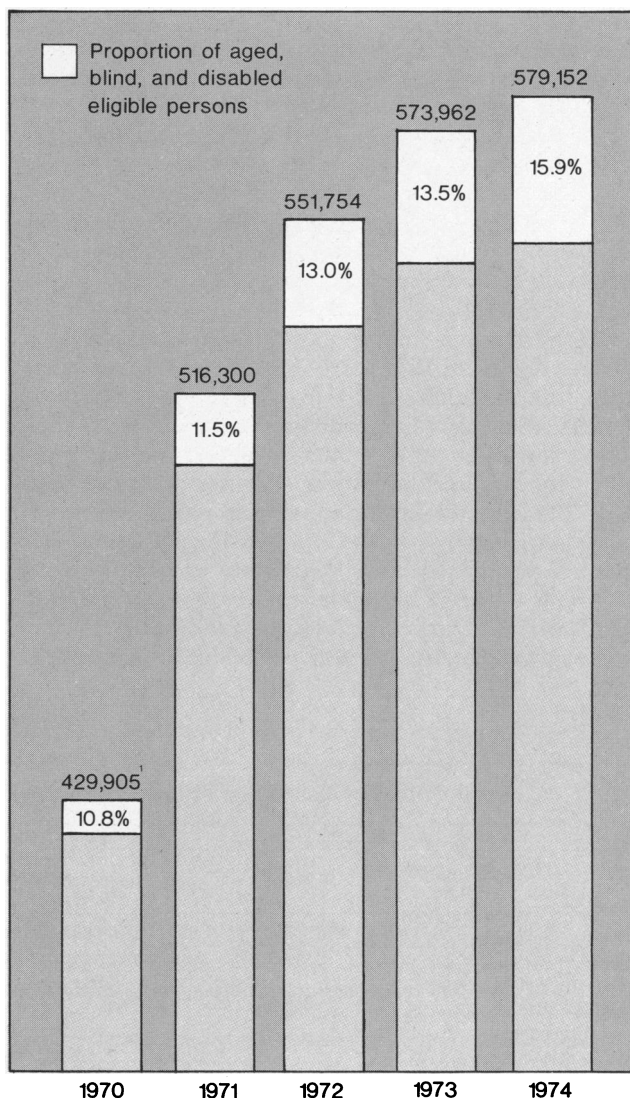
One probable reason for the lack of a pattern to the rates of price increases is the non-pure price factors mentioned earlier. Apparently, a portion of the price increases is due to these factors because Medicaid fees for physician visits were fixed for almost all of 1970-73 and for optometric examinations for the entire 4-year period. Yet the data show that during this time payments for a physician visit rose by 21.4 percent and an optometric examination by 3.0 percent. Likewise, payments for an inpatient hospital day and an outpatient visit undoubtedly reflect the influence of the relatively low prices charged for residents of State mental hospitals and schools for the retarded. Further, higher payments for a day of skilled nursing care probably partly reflect rising Federal standards of care, such as life-safety requirements. This is not to say, however, that a pure price increase was not responsible for part of the price increase. In the case of inpatient and outpatient care, part of the increase is undoubtedly a pure increase. And for optometrists, part of the increase was probably caused by practitioners who initially charged below the Medicaid maximum but later raised their fees closer to the maximum.

The eligible-persons effect accounted for 18.3 percent (method A) or 27.3 percent (method B) of the overall payment increase. Similar to the utilization effect, a substantial portion of the increase in the number of eligible persons occurred during the first 2 years of the program, a time when the number of public assistance recipients in New Jersey also grew rapidly. (The eligible persons index stood at 134.7 in 1974 compared with 120 in 1971). However, while the rate of increase slowed between 1971 and 1974, the chart shows a considerable change in the composition of the eligibility rolls. All things considered, this change to relatively more aged, blind, and disabled eligible persons would cause Medicaid payments to increase because of the numerous health needs of these persons.

The 1974 increase in the number of aged, blind, and disabled eligible persons is largely attributable to the 1972 Amendments to the Social Security Act. However, the full impact of this legislation was not felt during 1974, partly because of the relatively slow rate of growth in the number of eligible persons during the startup of the supplemental security income program. For the first half of the year, the number of these eligible persons increased by 9.0 percent compared with more than 18 percent for the second half; in December, they comprised 17.8 percent of the eligibility rolls. Hence, Medicaid payments will more fully reflect the impact of the 1972 amendments in 1975.

Compared with Gartside's findings, Medicaid payments in New Jersey increased more in response to the utilization effect and less in response to the price effect. Apparently, one reason for this is that she used a pre-Medi-Cal year as the base for her study, whereas the base of this study is the first year of the New Jersey program. In other words, Gartside's base is more likely to show price changes as more important in explaining payment increases because Medicaid fees and prices were generally higher than those paid under public assistance programs. Another reason is that the base for New Jersey favors the utilization effect because of a payment lag and the relatively low utilization during the startup months. Finally, the price effect for New

Average monthly number of eligible persons, calendar years 1970-1974



<sup>1</sup> Eleven month average.

SOURCE: Various reports of the Division of Medical Assistance and Health Services, New Jersey.

Jersey was probably held down by the national freeze imposed on health-care prices between August 1971 and April 1974. Without the freeze, the unit costs of services, especially hospital and skilled nursing care, probably would have been higher.

## Discussion

The data suggest that Medicaid payments will continue to rise. The amount of the rise cannot be determined partly because of unpredictable increases in the number of eligible persons and in Medicaid prices and fees. Undoubtedly, prices and fees will increase if price controls are not reinstated. On one hand, payments for an inpatient day will rise because hospitals are reimbursed on the basis of reasonable cost and skilled nursing facilities are reimbursed on a cost-related basis. In other words, with inflationary pressures in the health care industry and improvements in the quality of care—owing partly to higher Federal and State standards of care—reimbursement on a cost basis will result in rising unit costs. On the other hand, practitioners will have to be paid more for a unit of service to meet the rising cost of providing services. If they are not paid more, many practitioners would probably discontinue their participation in the program; others might provide unneeded services to offset the decreasing profit per unit of service.

The number of eligible persons will continue to rise if the State unemployment situation worsens or if the Federal or State government adopts policies to expand the Medicaid umbrella. Expansion of the program, however, would further crystallize the issue of society's structuring of its priorities, especially with the current fiscal crises. In other words, society will be made more aware of the painful decisions entailed in allocating its scarce resources. In the process, some will argue that health status could be served better by allocating more resources for housing and pollution controls and less for health services. Others will argue that more benefits would accrue to society by spending more for education and less for health services. Perhaps some will phrase

this argument in terms of the aged versus the young, that is, society would benefit more by spending on young rather than on aged persons. But whatever the arguments, the attempt to increase Medicaid coverage will probably lead to increased efforts to measure the benefits flowing from health services.

In addition to rising prices and more eligible persons, Medicaid payments will rise if utilization continues to increase. The data suggest that if the composition of eligible persons remained constant, utilization increases would decrease as the demand for restorative care leveled off. Then again, perhaps payments will decrease because the cumulative effects of receiving health services over time might result in eligible persons requiring less restorative care. In either instance, however, a change in the demand for restorative care may be reinforced or offset to some unknown extent by an increase in the demand for preventive care, which presumably is not as high as it could be.

That the demand for preventive care could be higher is suggested by studies showing that lower-income persons are less likely than higher-income persons (*a*) to realize the efficacy of treatment and (*b*) to have generally accepted health attitudes and practices. However, because of out-reach activities of the Division of Medical Assistance and Health Services and its attempts to inform eligible persons about the need to receive health services regularly, it is quite possible that eventually the demand for preventive care will increase. If this demand increases at a faster rate than the demand for restorative care may decrease, Medicaid payments will rise at a faster rate than otherwise expected.

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# SYNOPSIS

GRIMALDI, PAUL L. (Seton Hall University, New Jersey): *An analysis of the causes of increases in Medicaid payments, New Jersey, 1970–74. Public Health Reports, Vol. 90, November-December 1975, pp. 509–515.*

An examination of the causes of the increases in payments made for 9 of the 17 health services provided by the New Jersey Medicaid program during calendar years 1970–74 revealed that

most of the overall increase occurred because of an increase in utilization, followed by increases in prices and the number of eligible persons.

An analysis of the annual rates of change for each of the three factors showed that price changes did not conform to any discernible pattern, while most of the increase in eligible persons plus a substantial amount of the increase in utilization occurred during 1970–71. The findings suggest that

Medicaid payments will continue to increase in the future. However, because of uncertainty about the magnitude of price and utilization changes, coupled with uncertainty about whether the Medicaid umbrella will be expanded, as it was most recently by the 1972 Amendments to the Social Security Act, no definitive conclusions were reached about the size of future increases in Medicaid payments.